



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-219 BYPASS RATIO: 1.7  
 UNIQUE ID NUMBER: 4PW071 PRESSURE RATIO ( $\pi_{00}$ ): 20.3  
 COMBUSTOR: Environmental Kit (E\_Kit)  
 ENGINE TYPE: MTF RATED THRUST ( $F_{00}$ ) (kN): 96.5

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.0	51.2	55.3	8.9
AS % OF ORIGINAL LIMIT	0.0	43.4	68.7	37.2
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			85.8	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			107.5	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			122.2	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			151.8	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	1.354	0.00	0.42	18.72	6.9
CLIMB OUT	85	2.2	1.085	0.00	0.46	13.73	4.4
APPROACH	30	4.0	0.382	0.00	3.57	7.65	1.5
IDLE	7	26.0	0.134	0.00	17.19	4.16	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			501	0	4021	4604	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.0	41.7	47.7	6.9
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.8-103.1
TEMPERATURE (K)	271-281
ABS HUMIDITY (kg/kg)	0.0009-0.0047

### FUEL

SPEC	Jet A
H/C	1.91
AROM (%)	18

MANUFACTURER: Pratt & Whitney  
 TEST ORGANIZATION: P&WA  
 TEST LOCATION: East Hartford, CT  
 TEST DATES: 24/02/1999-02/03/1999

### REMARKS

1. Environmental Kit (E-Kit) Combustor and Fuel Nozzles, incorporated 5/99

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)